

**210 MW Bison 4 Wind Project, Minnesota Power (PSC Case No. PU-13-127)**

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## Permit Compliance Review

NDPSC Contract No.: PU-688-13-EE

Reporting Period: September 26<sup>th</sup>, 2013 – August 1<sup>st</sup>, 2014Prepared By: Houston Engineering, Inc. / Emmy Baskerville, Environmental Scientist and Bart Schultz, Project Manager

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**General:**

Houston Engineering, Inc. (HEI) was contractually hired by the North Dakota Public Services Commission (NDPSC) to complete the construction inspection activities, as part of the 210 MW Bison 4 Wind Project, (PSC Case No. PU-13-127). The following is a summary of the work completed to date and the anticipated timeframe for the completion of the permit compliance review. One environmental compliance site visit has been completed, and one additional site visit is planned during the construction process, and one additional after construction is complete. This field inspection report is for the initial site visit which occurred during June 2014.

**Summary of Activities / Items Completed to Date:**

The first site visit has been completed since construction was initialized. The focus of this initial site visit was environmental compliance inspection on areas of the wind project that were actively under construction. HEI drove throughout the Bison site and identified sections which were actively under construction. HEI visited the Index Areas as shown on **Figure 1: Bison 4 Wind Project - Index**. HEI did not observe active construction activities taking place within many of these areas so the focus the inspection was on areas actively in construction. Index areas where construction was observed includes Index areas 3, 5, 8 & 9 on the day we visited the on site.

The first environmental compliance visit targeted access roads and pads that were under construction. No turbines were being constructed or erected at the time of our site visit. HEI utilized GIS mapping and data from the applicant to aid in the identification of the exclusion, avoidance and selection criteria, as outlined within the permit. During the compliance site visit, we identified the following resources that were within and adjacent to the turbines under active construction: historic / cultural resources, tree clearing areas and wetland avoidance areas. Also observed during our site visit were topsoil separation, an active laydown area, and the installation of silt fencing around and adjacent to bare soil on the access roads and pads.

All areas observed under construction had appropriately placed erosion control (silt fencing). In addition, appropriate construction signage along public roads was observed within the heavy equipment areas. Tree removal activities had occurred and the debris had been removed from the site (no debris was observed). One archaeological / historic area adjacent to turbine 463 was identified. HEI observed that the access road construction had completely avoided this area, complying with the permit stipulations. Rough road rutting was noted along 59<sup>th</sup> Avenue, adjacent to turbine 463. The road near turbine 463 will require some restoration.

**Future Activities for the next reporting period:**

HEI will perform the second permit compliance trip as construction progresses to further access permit compliance for the construction activities. Based on the current pace of construction, HEI anticipates that the next site visit will occur in the late fall, 2014. Additionally, HEI will complete one final permit compliance site visit after construction ends to verify that all permit compliance issues have been addressed, focusing on road restoration and restoration of open soil areas. Based on the current pace of construction, HEI anticipates that this compliance visit will take place in the spring of 2015.

# Photos



**Photo 1:** Access road for Turbine 463, from the south facing north. The staked archaeological / historic area can be seen in the foreground, and the access road construction avoids this identified area.



**Photo 2:** Silt fencing surrounding the pad for turbine 463. From the southeast facing northwest from 28<sup>th</sup> street.



**Photo 3:** Access road for turbine 462. The county road conditions in this area were relatively rough, however active construction equipment was in the area. This roadway will need to be restored to the original condition.



**Photo 4:** Access road (foreground) and pad (background) for turbine 461. Silt fencing was observed surrounding the pad.



**Photo 5:** Access road and pad construction for turbines 452 (foreground) and 459 (background). Silt fencing observed.



**Photo 6:** Active construction on pad for turbine 420. Silt fencing observed surrounding pad.





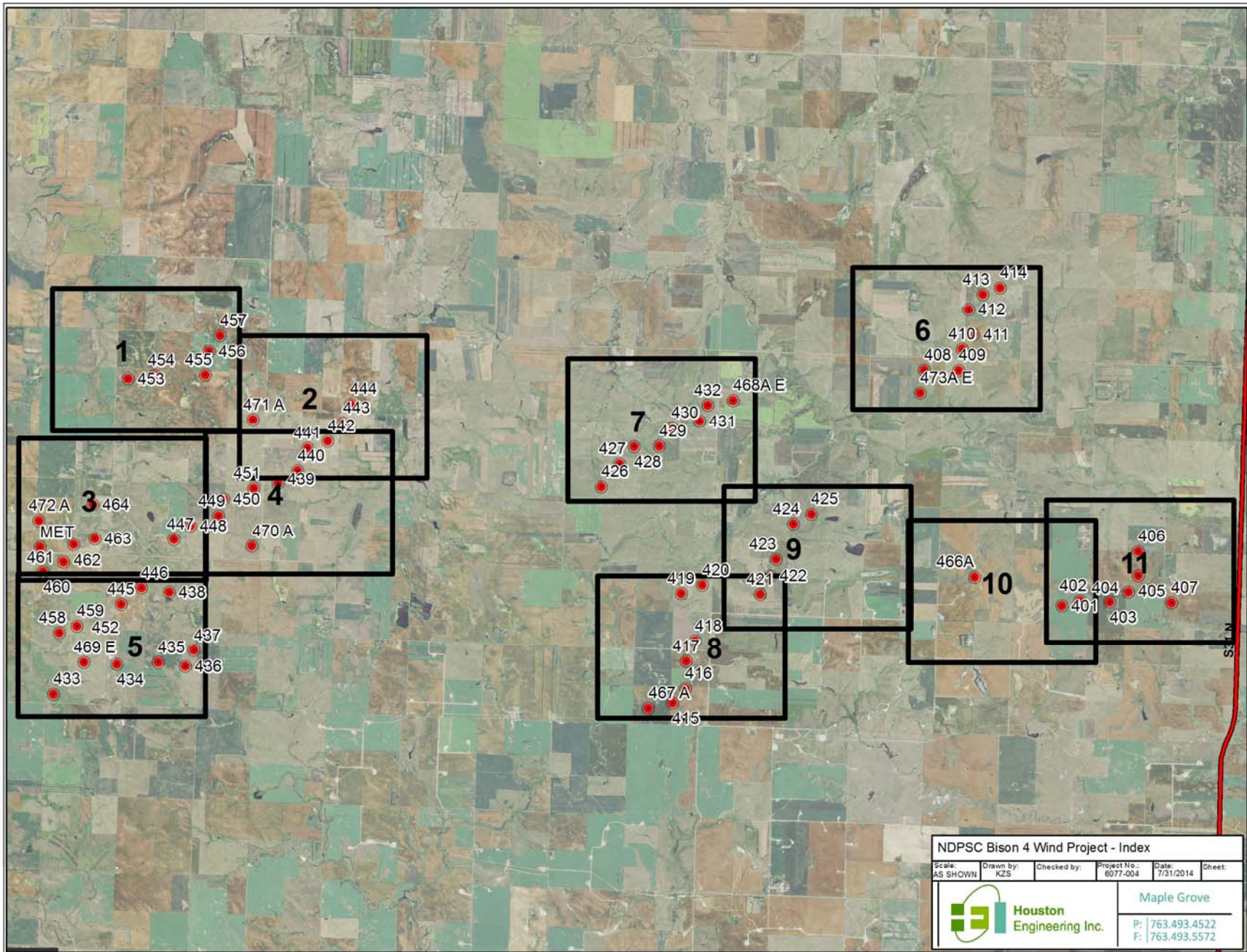
**Photo 7:**  
Laydown area.



**Photo 8:**  
Completed  
access road for  
turbine 421,  
from the south  
facing north.

## **FIGURE 1: Bison 4 Index Map**





## Field Data

Bison 4 Vist 1

Index 1

no active const. obs.

Index 2

no active const. obs.

Index 3

Pole 463 - road rutting (County gravel)  
\* ~~active~~ construction of access road ~~obs.~~ ~~obs.~~ complete

\* silt fence installed  
\* Soil separation (top) obs.  
\* avoidance of arch/hist res.

462

\* ~~active~~ construction of access road / complete?  
appears

\* silt fence in place

461

\* ~~active~~ looks like access rd.  
complete?  
- silt fence in place

INDEX 5

452 / 459(?)

active const. of access road  
silt fences in place  
- const. equipment obs.



419 | 420

- active const of <sup>access</sup> ROAD / PAD
- silt fences in place
- tree rem. appears complete

~~419~~ | LAY DOWN AREA

- active const. of access ROAD / PAD
- concrete trucks obs
- public ROAD SIGNAGE obs
- silt fence in place

421

- access ROAD complete, no ~~other~~ const. observed

no other active const. observed today.